

भारतीय प्रौद्योगिकी संस्थान जम्मू INDIAN INSTITUTE OF TECHNOLOGY JAMMU

# PG CERTIFICATE PROGRAM IN IOT AND EMBEDDED SYSTEMS

Shape Tomorrow's Technology - Connecting You to a World of Possibilities

### **Experience Education Like Never Before - Get the IIT Jammu Advantage**

IIT Jammu is recognized as an "Institute of National Importance" under the "Institutes of Technology Act" of 1961. IIT Jammu is an autonomous public higher education institute that operates under the governance of the IIT Council and receives funding from the Government of India.

Inaugurated on 6th August 2016, IIT Jammu opened its doors to the first batch of students at its campus in Paloura, Jammu. During its initial phases, the institute benefited from the mentorship of IIT Delhi.

In 2018, IIT Jammu shifted its primary operations to the Main Campus located in Jagti, Nagrota. The

Government of Jammu and Kashmir generously provided 400 acres of land for the establishment of the permanent campus. Currently, Phase 1A of the main campus, covering 25 acres, is fully operational, while Phase 1B and 1C are under construction.

The Paloura campus currently accommodates PhD scholars and is being developed into a cutting-edge research facility.

Situated on National Highway 44, the main campus of IIT Jammu is conveniently located approximately 15 kilometers from the airport, offering easy accessibility to students and faculty alike.



Ranked 67th	In Engineering by NIRF 2023
Secured 2nd	Position in IIT Civil Conclave 2022
1300+	Students
100+	Faculty Members



### **Program Overview**

The online PG Certificate in IoT Fmbedded and Systems program at IIT Jammu offers a comprehensive curriculum that covers the fundamental principles, technologies, and applications of IoT and Embedded Systems. Through industry projects and case studies, students will develop the skills required to design, develop, and deploy IoT and Embedded Systems solutions that cater to real-world industry challenges and requirements.

### Who Can Apply? - Course Eligibility

Academic Background: Candidates undergoing a bachelor's degree in relevant fields or professionals with at least one year of industry experience are welcome to apply.

Prerequisites: A foundational understanding of Physics and Maths from high school is mandatory.

### Who Is This Program For?

- Professionals who are already working in technology-related fields, including IT professionals, software engineers, and hardware engineers, this program provides an opportunity to deepen their expertise.
- Entrepreneurs, innovators, tech enthusiasts & engineers eager to master IoT and Embedded Systems.
- Recent graduates or students who are keen on becoming a sought-after IoT and Embedded Systems professional.
- Engineers and software developers seeking a deep understanding of IoT and Embedded Systems will find this program invaluable for honing their skills.
- Individuals passionate about this field and want to stay ahead in the digital age.

# **PROGRAM OBJECTIVES**

Equip students with the foundational knowledge of IoT and embedded systems.

Dive into the practicalities of interfacing, programming, and connecting embedded devices.

Understand the critical role of communication protocols and cloud architectures in IoT.

Analyze the importance of security in both IoT and embedded systems.

Explore real-world applications and the future potential of IoT.

# **Program Structure**

Module 1:	Introduction to IoT and Embedded Systems
Module 2:	Embedded Systems and Physical Interfacing
Module 3:	Programming the Devices
Module 4:	Consumer Behaviour
Module 5:	IoT Architectures and Cloud Integration
Module 6:	Security in IoT and Embedded Systems
Module 7:	Device Management and Data Analytics
Module 8:	Use Cases and Demonstrations



### **Core Learning Outcomes**

By the end of the program, students will be able to:

- Understand the architecture, components, and significance of IoT.
- Distinguish between different types of embedded systems and their applications.
- Program embedded devices using various languages and understand the role of RTOS.
- Comprehend and implement various IoT communication protocols and standards.
- Design, deploy, and scale IoT solutions using cloud platforms.
- Appreciate the importance of security in IoT and embedded systems and implement basic cryptography.
- Apply real-world use cases, from energy monitoring to smart city solutions.

### **Program Highlights**



An esteemed certification from IIT Jammu & campus immersion opportunity



Explore top-notch learning with industry experts



Learn through Virtual Instructor-Led Training (VILT)

## **Program Admission Journey**



Note: The application fee once paid is not refundable. IIT Jammu reserves the right to conduct the admissions process. By submitting the application, the students agree that any decision regarding Admissions from IIT Jammu will be final and binding.

# **Fee Structure**

Application Fee	₹ 5000/-
Program Fee	₹ 55,000/-
IOT Kit Fee	₹ 12,000/-
Campus Immersion Fees (Optional) Once for 5 days during the program	₹ 7,000/-

### Total Course Fees : ₹ 67,000\*

(Excluding Application Fee & Optional Fees. GST @18% additionally applicable)

## **Sample Course Certificate**

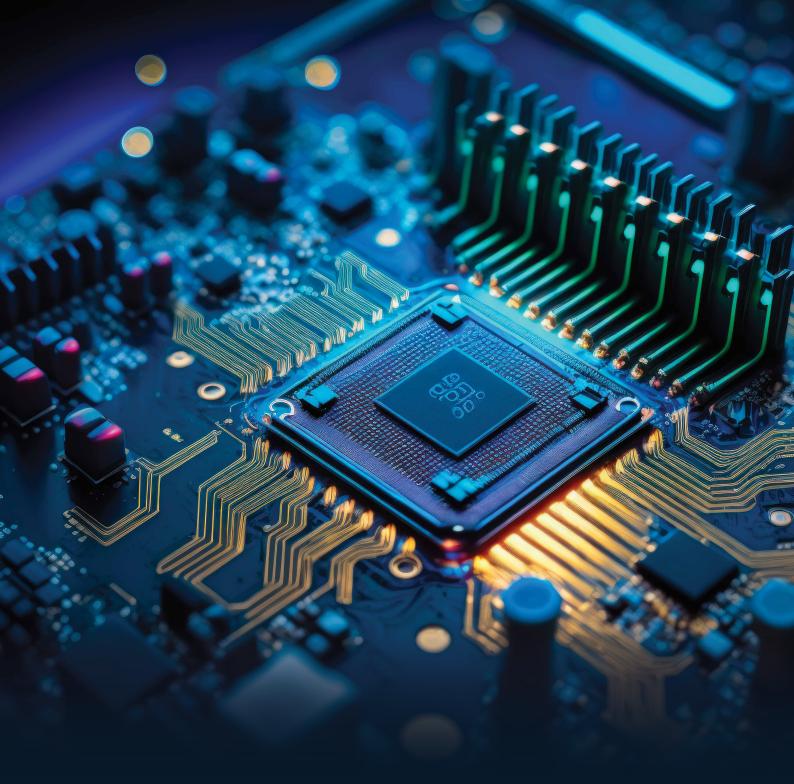


# **Program Coordinator**



### **PROF. ANKIT DUBEY**

Assistant Professor Program Co-Ordinator - IIT Jammu



# **Get In Touch With Us**

For registration and any other information please get in touch with us at admission@tleiitjammu.in

### Contact us: 011-4117-0773